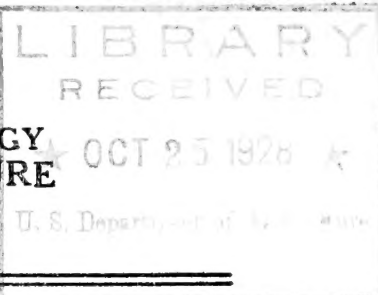


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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY
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DECIDUOUS-FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, in Charge

Oliver I. Snapp, in charge of the peach-insect field laboratory at Fort Valley, Ga., was in Washington from September 12 to September 15 for conference relative to the work at his station.

C. H. Alden, Entomologist, Georgia State Board of Entomology, visited the field laboratory at Fort Valley for several days in the latter part of August.

COTTON-INSECT INVESTIGATIONS

B. R. Coad, in Charge

Dr. Paul Vayssière, associate director of the Entomological Station of Paris, was a visitor at Tallulah, La., September 3 to 5. He was greatly interested in the organization and work of the Delta Laboratory, particularly in demonstrations of dusting cotton with ground machines and airplanes.

S. F. Potts, of the Gipsy Moth and Brown-tail Moth Investigations at Melrose Highlands, Mass., was a visitor at the Tallulah Laboratory on September 25. He was especially interested in airplanes and equipment for dusting.

On September 10 John H. Russell was appointed Field Assistant in Pink Bollworm Investigations at the field laboratory at El Paso, Tex.

The following temporary field assistants at the Tallulah Laboratory resigned in the month of September: C. F. Rainwater, J. K. V. Stewart, D. H. Ratcliff, Geo. A. Noel, Fred B. Russell, S. T. Williamson, D. B. Sherman, Sloan E. Jones, Josh Randolph, J. G. Anderson, and W. R. Gore. The terms of appointment of H. D. Tate and T. E. Dawson expired September 17 and 30, respectively.

TRUCK-CROP INSECT INVESTIGATIONS

J. E. Graf, in Charge

N. F. Howard, of the Columbus, Ohio, Mexican bean beetle laboratory, visited Birmingham, Ala., September 3, to confer with L. W. Brannon regarding the latter's investigations. On September 11 he attended the meeting of the Vegetable Growers Association of America, held at South Bend, Ind., where he discussed the control of the Mexican bean beetle. On September 15 to 19 he visited Washington, D. C., and vicinity, to inspect the Mexican bean beetle experimental plots at Arlington Farm, in Virginia, and to discuss the project with the entomologist in charge.

A. C. Morgan, Clarksville, Tenn., visited the field laboratory at Chadbourn, N. C., on September 13, and that at Charleston, S. C., on September 17.

W. J. Reid, Jr., Chadbourn, N. C., has resumed his work on the seedcorn maggot investigation at Charleston, S. C.

R. E. Campbell, Alhambra, Calif., reports that Dr. A. Silvestri, Portici, Italy, Wm. B. Gurney, Sydney, New South Wales, and Dr. Bernard Trouvelot, Versailles, France, visited his laboratory on September 14.

T. C. Johnson, Director of the Virginia Truck Experiment Station, Norfolk, visited the office of this Division on September 24, and plans were discussed for the establishment of a Mexican bean beetle sub-laboratory at Norfolk, Va.

O. H. Lovell has been appointed Agent at San Jose, Calif., to succeed R. W. Burgess, and, in cooperation with California workers, will devote his time to the project on the vegetable weevil.

M. C. Lane and K. E. Gibson have been transferred from Toppenish, Wash., to Walla Walla, Wash., where the main wireworm field laboratory will now be located. F. H. Shirck will continue his studies at Toppenish and act in charge of the sublaboratory there.

Joe Milam, Clarksville, Tenn., has been transferred temporarily to the Plant Quarantine and Control Administration, where he will conduct inspection work for the pink bollworm.

C. B. Wisecup has received a probationary appointment as Junior Entomologist, and is stationed at Sanford, Fla., where he will be engaged on the problem of the celery leaf-tyer.

O. E. Gahm has completed the season's work on the chemical control of the Mexican bean beetle, at Arlington Farm, in Virginia, and returned to his permanent headquarters at Columbus, Ohio, on September 29.

The appointments of the following field assistants have been terminated: C. W. Getzendaner, Alhambra, Calif., W. F. Senette, Baton Rouge, La., O. R. Causey, Chadbourn, N. C., C. H. Smith, Richfield, Utah, Herman Beerman, Philadelphia, Pa., H. C. Mason, Columbus, Ohio, and T. E. Bronson, Madison, Wis.

The following field assistants have resigned: P. E. Kirker, Jr., Toppenish, Wash., and D. M. Delong and D. F. Miller, Columbus, Ohio.

CEREAL AND FORAGE INSECT INVESTIGATIONS

W. H. Larrimer, in Charge

Dr. Bernard Trouvelot, of the Institut des Recherches Agronomiques, Versailles, and Dr. Filippo Silvestri, R. Scuola Superiore di Agricoltura, Portici, Italy, visited the Forest Grove, Oreg., laboratory on August 31 and September 2, respectively.

Dr. Paul Vayssière, assistant director of the Station Entomologique of Paris, visited the New Orleans, La., field laboratory on September 6, 7 and 8. J. W. Ingram, in charge of the sublaboratory at Crowley, La., was also present.

The Fourth Annual Conference of the International European Corn Borer Organization was held September 27 and 28, 1928. September 27 was spent at the European Corn Borer Development Farm, about 10 miles east of Toledo, Ohio, and at the Ohio State plots. Several fields where infestation of the European corn borer was most serious were also visited. The forenoon of September 28 was spent at the Federal and State laboratories at Monroe, Mich., and the general conference was held at Toledo in the afternoon. Preceding the general conference, committees representing the American Association of Economic Entomologists, The American Society of Agronomy, The American Society of Agricultural Engineers, and the American Farm Economic Association, spent three days in the field, investigating the corn borer situation. The joint report of these committees was presented at the general session of the conference on Friday afternoon. This report gave in considerable detail recommendations as to the needs for research on the European corn borer. There were approximately 150 in attendance at the general conference, consisting of scientists, administrative officials, and farmers interested in the general corn borer problem.

TAXONOMIC INVESTIGATIONS

Harold Morrison, in Charge

F. C. Fletcher, of Cornell University, spent September 4 to 8 studying type material in the Casey collection, in connection with a revision of the North American Pselaphidae.

The temporary appointment of Dr. L. H. Taylor, University of West Virginia, who was employed by the Bureau for three months to work on the North American chrysidids, terminated September 10.

G. J. Haeussler, of the oriental peach moth field laboratory, Moorestown, N. J., called at the Museum September 12 to discuss with the Bureau specialists the hymenopterous parasites of the oriental peach moth.

On September 13, Dr. Walther Horn, director of the Deutsches Entomologisches Institut, left the Museum after spending about three weeks working in the Museum collection of Coleoptera. While here Dr. Horn named much of the undetermined material of the family Cicindelidae.

E. P. VanDuzee, curator of insects, California Academy of Sciences, spent September 12 to 15 working in the Museum collection of Hemiptera.

Dr. Francis Rambousek, of Prague, Czechoslovakia, spent September 20 to 29 studying the Museum collection of Staphylinidae, with special reference to the Casey collection. He also discussed with the specialists the methods employed in Europe for collecting minute subterranean insects, some of which have not been tried out in this country.

Allan Nicolay, Brooklyn, N. Y., called at the Museum September 22 to consult with some of the Bureau specialists and to examine specimens in the Casey collection. Mr. Nicolay is interested in the study of carabid beetles and weevils.

Dr. C. E. Mickel, who was employed by the Bureau for $2\frac{1}{2}$ months to study critically the Museum collection of Mutillidae, returned to the University of Minnesota on September 22.

G. P. Engelhardt, curator of the Brooklyn Museum, Brooklyn, N. Y., spent September 26 in the Division of Insects, studying the Museum collection of clear-winged moths.

Frank Johnson, New York City, visited the section of Lepidoptera on September 28.

Dr. H. Morrison and Mr. H. S. Barber, of the Taxonomic unit, assisted Dr. R. G. Jeannel, of the Museum National d'Histoire Natural of Paris and Dr. C. Bolivar y Pieltain, of the Museo Nacional of Madrid, in their investigation of North American cave fauna during the period from August 24 to September 3. Dr. Morrison accompanied these two foreign visitors to caves in Indiana and Kentucky, and Mr. Barber to some of those in Virginia. The results of the trip were much enhanced in value by assistance from officials of the Indiana State Department of Conservation, from Prof. H. Garman, of the University of Kentucky, and from Prof. W. J. Schoene, of the Virginia Experiment Station.

INSECTS AFFECTING MAN AND ANIMALS

F. C. Bishopp, in Charge

J. L. Webb has been transferred from the field force of the Division of Cotton Insects to the Washington force, Insects Affecting Man and Animals, and will assist in the administration of the Division.

R. W. Wells returned to his field station, Beltsville, Md., on September 12, after conducting a series of tests of methods of cattle grub control at Herkimer, N. Y.

D. C. Parman, of the Uvalde, Tex., sublaboratory, was in Washington September 10 to 12 to consult with Bureau officials.

D. G. Hall, Temporary Field Agent, resigned August 31 to accept a scholarship at the Kansas State Agricultural College.

Wesley G. Bruce was appointed Assistant Entomologist September 5, and was assigned to Cattle Grub Investigations, with headquarters at Fargo, N. D. During September he was engaged in a survey of the cattle-grub situation in the Red River Valley and at points in North Dakota, South Dakota, and Minnesota.

Dr. Paul Vayssière, Associate Director of the Entomological Station of Paris, visited the mosquito laboratory at Mound, La., on September 4.

W. G. Bruce attended the eighth annual meeting of the International Great Plains Crop Pest Committee, held at Fargo, N. D., September 12 and 13.

FOREST-INSECT INVESTIGATIONS

F. C. Craighead, in Charge

Dr. F. C. Craighead spent the first week of September at Asheville, N. C., reviewing the summer's work at the field laboratory at this point. He also spent a few days in the vicinity of the Mont Alto Forest School, Pa., with H. J. MacAloney, in studies of the white pine plantations in that region. The Mont Alto Forest School and the Pennsylvania State Forest Service gave them considerable assistance in this work.

On September 27 H. J. MacAloney passed through Washington, D. C., on his return from Asheville, N. C., where he had spent 10 days investigating injury by the white pine weevil in the Biltmore plantations. These plantations, 30 to 35 years old, are exceedingly thrifty and free from damage by the weevil. They are probably the finest plantations of this type in the East. Mr. MacAloney also spent some time in natural pine stands in this vicinity and in plantations in natural stands in central Pennsylvania. These studies are made in connection with the completion of three year's investigation of the white pine weevil.

Floyd F. Smith, of the Pennsylvania State Department of Agriculture, spent several days in Washington in the latter part of September, conferring with Mr. Middleton and other officers of the Bureau on his entomological problems.

R. A. St. George has returned to his official headquarters at East Falls Church, Va. During the summer just ended the greater part of his time has been devoted to participation in a study of the defects of timber that appear in the course of the normal operation of sawmills, conducted by the Forest Products Laboratory of the Forest Service, in cooperation with the Division of Forest Pathology of the Bureau of Plant Industry, in Virginia, West Virginia, and North Carolina. Much valuable information as to the character and extent of insect defects in hardwood lumber was obtained. Mr. St. George also spent several weeks at Asheville, N. C., in biological studies of the southern pine beetle.

J. M. Miller, F. P. Keen, and H. L. Person spent a considerable part of the month of September on the Modoc National Forest, Calif., working in cooperation with Forest Service officials on a large timber sale which has been initiated in that region. The motive of this sale, involving an entire township of Government land, was based entirely on the control of Dendroctonus brevicomis Lec., which has destroyed nearly 20 per cent of timber in that region in the last 5 years.

J. C. Evenden spent the greater part of September in a survey of the Bighole Basin, in the State of Montana, checking up results of the \$100,000 control project conducted by the Forest Service, and in mapping the new infestation by the bark beetle in this area preparatory to outlining plans for next year's work. The entire staff of the Coeur d'Alene, Idaho, field laboratory assisted in this undertaking.

Through cooperation between this Division and the Forest Products Laboratory, four sets of timbers have been impregnated with 14 chemical wood preservatives; the sets will be sent to South Africa, Australia, Hawaii, and Panama, respectively, to be tested as to preservatives in preventing attack by termites. Competent entomologists at these locations will report on the results of the tests.

The entire Division of Forest Insects moved its quarters in the latter part of September, occupying the rooms on the north side of the Insectary Building.

Contributions From the Gipsy-Moth Laboratory

The following entomologists recently visited the Gipsy Moth Laboratory:

August 21: Professor I. Trägårdh, Stockholm, Sweden, Dr. I. N. Filipjev, Tiflis, Russia, and Dr. E. N. Cory, College Park, Md. August 22: Dr. Jaromir Samal, Praha, Czechoslovakia, and Professor H. J. Quayle, Riverside, Calif. August 23: S. E. Flanders, Saticoy, Calif., and W. W. Yothers, Orlando, Fla. August 24: J. G. F. Fryer and Dr. A. D. Imms, London, England, Dr. George Salt, Calgary, Canada, and John E. Dudley, Jr., Madison, Wis. August 27: Dr. W. E. Hinds, Baton Rouge, La. August 28: P. Vayssière, Paris, France, Don Demetrio D. de Torres, Madrid, Spain, Don Fernando Silvela, Washington, D. C., D. B. Mackie, Sacramento, Calif., and Dr. H. M. Tietz, State College, Pa. August 29: Dr. N. A. Kemner, Stockholm, Sweden, Dr. Alfons Dampf, Mexico City, Mexico, Prof. M. N. Rimsky-Korsakov and N. N. Bogdanov-Katjkov, Leningrad, Paul I. Adrianov, Moscow, and Professor Ph. Zaitzev, Tiflis, all in Russia; Professor W. Roepke, Wageningen, Holland, G. Fox-Wilson, London, England, Rev. Dr. R. Streda, Budapest, Hungary, Dr. Uunio Saalas, Helsinki, Finland, Dr. Hassan C. Efflatoun Bey, Cairo, Egypt, Dr. Elisabeth Skwarra, Königsberg, Dr. Martin Schwartz, Berlin, and Dr. F. Stellwaag, Neustadt, Hdt., Germany; Mathias Thomsen, Copenhagen, Denmark, Dr. Robert Regnier, Rouen, France, Dr. R. Bledowski, Warsaw, Poland, Dr. W. M. Wheeler, Dr. Joseph Bequaert, Dr. C. T. Brues, Dr. F. M. Carpenter and R. L. Taylor, Cambridge, Mass., and C. W. Johnson, Boston, Mass. September 6: Dr. C. Bolivar y Pieltain, Madrid, Spain; Dr. Rene G. Jeannel, Paris, France; D. M. Daniel, Geneva, N. Y., and W. D. Whitcomb, Waltham, Mass. September 13: Dr. Karl Jordan, Tring, Herts, England, and H. H. Richardson, Ames, Iowa.

E. E. Atwood, Junior Entomologist, stationed at the Gipsy Moth Laboratory, resigned August 31. He will teach in the high school at Haverhill, Mass.

R. L. Wallis, a graduate of the Colorado Agricultural College, has been appointed Junior Entomologist, to report for duty at the Gipsy Moth Laboratory on September 1.

Dr. F. C. Craighead spent August 18 to 23 at the Gipsy Moth Laboratory.

C. W. Collins, T. H. Jones, M. T. Smulyan, and J. V. Schaffner, Jr., of the Gipsy Moth Laboratory, attended the Fourth International Congress of Entomology at Ithaca, N. Y., August 14 to 16.

TROPICAL, SUBTROPICAL AND ORNAMENTAL PLANT INSECT INVESTIGATIONS

A. C. Baker, in Charge

In September the final plans were completed for the Northwestern Laboratory at Puyallup, Wash. The details of construction of the laboratory plant are being handled for the growers by the Commissioners of Pierce County, and the first bids were received on September 24. This laboratory will be devoted to the study of insects attacking ornamentals in the Northwestern States. The main building will be 32 by 40 feet and, besides office space, will contain laboratories for the chemical and biological phases of the work, dark room, cold room, etc. The plant will have a 75-foot greenhouse for experimental work under glass, which will be divided into three 25-foot houses, permitting varied conditions of culture and treatment. This laboratory is being handled by Mr. Doucette, who has had considerable experience with pests of ornamentals in Pennsylvania, California, and the Northwest.

In September, also, the minor details of construction of the Mexican Laboratory were completed. This plant, supplied by the Mexican authorities through the cooperation of the Oficina para Defensa Agricola, is composed of two concrete buildings with suitable grounds. The one building contains a large office and a laboratory for the study of the qualities and composition of different host fruits in relation to infestation by the Mexican fruit worm. This building also contains a chemical storeroom, engine room, and bath. The second building contains six laboratory rooms, arranged on both sides of a central covered passage through which trucks can be driven to the doorways of the laboratories. In this building the various pieces of control equipment have been installed. These will permit the control of climatic conditions such as temperature, humidity, and atmospheric pressure, so that climatic conditions in any fruit-growing region of the United States may be duplicated. Here the fruit worm will be grown and studied under conditions as nearly as possible like those of American regions to which it may gain access.

The work of the laboratory at Mexico City is being supplemented by field work and studies in an insectary located in Cuernavaca. Ideas obtained from field observations may therefore be checked under controlled conditions in the laboratory.

On September 24 Dr. Hugh Darby and Miss Eleanor Kapp reported for duty at the Mexican Laboratory. Dr. Darby will have charge of some of the specialized phases of the work of the laboratory, and Miss Kapp will serve as laboratory assistant. Dr. Darby came into biology as a physicist trained at Cambridge, England. He did his undergraduate work in biology and received his doctorate at Columbia University, where he specialized in insect physiology. Miss Kapp has received both the B. A. and M. A. degrees from Columbia University, and has since done special graduate work on laboratory methods in biology.

Dr. Elisabeth Skwarra, a specialist on the relation of insects to their environment, reported for duty in Mexico September 18. She came to the United States as an official delegate to the International Congress at Ithaca, and accepted a six months' appointment in Mexico to gather data on the influence of environmental conditions on the pupae of the Mexican fruit worm. Her appointment covers the period of the ripening of the fruit and the pupation of the larvae. The data gathered by Dr. Skwarra will be studied in relation to the facts gathered in the laboratory and insectary.

The insectary in Cuernavaca is handled by Mr. McPhail, formerly entomologist of the Citrus Experiment Station of Texas. Mr. McPhail made most of the discoveries of the Mexican fruit worm in the Rio Grande Valley, and his knowledge of citrus insects and conditions is of much value in his present work.

At the Central California Citrus Institute, held at Lindsay, Calif., September 21 and 22, 1928, an address was made by E. A. McGregor on the subject "Citrus Thrips Control." This proved to be the best attended Institute in the history of central California, there being about 500 present.

BEE CULTURE INVESTIGATIONS

James I. Hambleton, in Charge

The new Southern States Bee Culture Field Laboratory was opened on July 16 at Baton Rouge, La., with W. J. Nolan acting temporarily in charge. Dr. W. W. Whitcomb, jr., who has received his doctor's degree at the University of Wisconsin and was recently engaged in entomological work for that State, accepted a position as Assistant Apiculturist with the Bureau of Entomology on July 18; and after spending a couple of weeks at the Bee Culture Laboratory at Somerset, Md., left

for Baton Rouge. He there took charge of the Field Laboratory on August 30, and Mr. Nolan returned to Washington. Mr. Nolan gave a talk concerning the new field laboratory at a meeting of the Louisiana State Beekeepers' Association, held on July 25 and 26, and also at the Southern States Beekeepers' Conference, in session at Texarkana, Tex., on August 6 and 7. Later, he participated in the beekeeping program of Farmers' Week, held by the University of Florida, at Gainesville, Fla., on August 13 to 18. Doctor Whitcomb also attended the Texarkana meeting. On their return from Texarkana, Mr. Nolan and Dr. Whitcomb, in company with Jes Dalton, made a survey of the package-bee business around the Hamburg center in Avoyelles Parish, La.

Dr. L. M. Bertholf, who continued this summer at the Bee Culture Laboratory his studies on the reaction of bees to light of various wavelengths and intensities, resigned his temporary appointment as Field Assistant on September 10, to resume his duties as Professor of Biology at Western Maryland College, Westminster, Md.

Miss Mary Louise Crossman, temporarily employed as Field Assistant at the Bee Culture Laboratory, resigned on September 13 to assume teaching work at the East Falls Church High School, East Falls Church, Va.

Ralph K. Day, who has been temporarily employed as Field Assistant at the Bee Culture Laboratory, and who worked on color change in honey, resigned September 18 to resume graduate work at the California Institute of Technology, Pasadena, Calif.

Prof. C. L. Farrar, in charge of beekeeping at the Massachusetts Agricultural College, Amherst, visited the Bee Culture Laboratory on September 11.

Dr. Everett Oertel, who has been assisting in the beekeeping work at Cornell University, and Mrs. Oertel visited the Bee Culture Laboratory several days in the week of September 10.

Prof. Shujiro Inomata, Entomologist at the Agricultural College, Tottori, Japan, visited the Laboratory on September 25. Professor Inomata states that courses in beekeeping will be given at the Agricultural College at Tottori.

Jes Dalton, of St. Francisville, La., for the last few years president of the Louisiana State Beekeepers' Association, was appointed September 20 a collaborator of the Bee Culture Laboratory.

Prof. F. B. Paddock, of the Iowa Agricultural College, Ames, Iowa, visited the Intermountain Bee Culture Field Laboratory, Laramie, Wyo., in the week of September 10.

John C. Ferris, of the East Coast Canning Co., Jacksonville, Fla., called at the Laboratory on September 18 to discuss methods of bottling honey.

Roth Hamilton, of the firm of Hamilton, Wallace and Bryant, Los Angeles, Calif., exporters of honey, conferred with Jas. I. Hambleton on September 24 in regard to foreign honey markets. Mr. Hamilton stopped in Washington after an extended trip through Europe, where he made a careful study of the honey markets.

The Bee Culture Laboratory has just received two Pfund honey graders which are to be assigned to the offices of the United States Trade Commissioners in London and Hamburg, there to be available for use by foreign buyers of honey. Through private generosity these graders are being sent abroad without cost to the Government.

LIBRARY

Mabel Colcord, Librarian

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